



**Inter American University of Puerto Rico
Guayama Campus
Department of Health Sciences
Inter Humacao University Center
Associate of Applied Science Degree in Radiologic Technology**

SYLLABUS

I. GENERAL INFORMATION

Course Title	:	Radiographic Pathology and Medical Terminology
Code and Number	:	RATE 2240
Credits	:	Three (3)

II. DESCRIPTION

Discussion of the basic concepts and medical terminology related to the disease and its etiological considerations in the different systems of the human body. Analysis of the radiographic appearance of the different diseases and their involvement in the selection of technical exposure factors. Requirements: RATE 2222, 2912. 3 credits.

III. OBJECTIVES

It is expected that, upon completion of the course, the student will be able to:

1. Define the basic concepts and terms of disease, pathology, physical damage, systemic classification of disease, replacement, and repair.
2. Discuss the causes and factors associated with diseases.
3. Describe the basic manifestations of pathological conditions and their relevance in radiographic procedures in the different systems of the human body.
4. Analyze the radiographic appearance of diseases in the different modalities of radiographic diagnosis.

IV. CONTENT

To. Definitions and terminology

1. Pathology
2. Illness
 - a. Acute
 - b. Chronicle
3. Pathogenesis
4. Aetiology
5. Diagnosis
 - a. Signs (objective)
 - b. Symptoms (subjective)
6. Prognosis
7. Pathological manifestations
8. Incidence
9. Prevalence
10. Morbidity
11. Mortality
12. Epidemiology

B. Causes of Disease

1. Pathological
2. Trauma
3. Surgical
4. Healing process
5. Complications
6. Genetic versus hereditary
7. Congenital

C. Radiographic pathology

1. Skeletal System
 - a. Definitions
 - b. Etiology
 - c. Examples
 - d. Complications
 - e. Prognosis
 - f. Radiographic appearance
 - g. Procedures and technical considerations
 - h. Relevance of radiographic procedures
 - i. Patient considerations and indications
 - j. Diagnostic modalities
2. Digestive system
 - a. Definitions
 - b. Etiology

- c. Examples
 - d. Complications
 - e. Prognosis
 - f. Radiographic appearance
 - g. Procedures and technical considerations
 - h. Relevance of radiographic procedures
 - i. Patient considerations and indications
 - j. Diagnostic modalities
3. Respiratory system
- a. Definitions
 - b. Etiology
 - c. Examples
 - d. Complications
 - e. Prognosis
 - f. Radiographic appearance
 - g. Procedures and technical considerations
 - h. Relevance of radiographic procedures
 - i. Patient considerations and indications
 - j. Diagnostic modalities
4. Urinary System
- a. Definitions
 - b. Etiology
 - c. Examples
 - d. Complications
 - e. Prognosis
 - f. Radiographic appearance
 - g. Procedures and technical considerations
 - h. Relevance of radiographic procedures
 - i. Patient considerations and indications
 - j. Diagnostic modalities
5. Reproductive System
- a. Definitions
 - b. Etiology
 - c. Examples
 - d. Complications
 - e. Prognosis
 - f. Radiographic appearance
 - g. Procedures and technical considerations
 - h. Relevance of radiographic procedures
 - i. Patient considerations and indications
 - j. Diagnostic modalities

6. Circulatory system
 - a. Definitions
 - b. Etiology
 - c. Examples
 - d. Complications
 - e. Prognosis
 - f. Radiographic appearance
 - g. Procedures and technical considerations
 - h. Relevance of radiographic procedures
 - i. Patient considerations and indications
 - j. Diagnostic modalities

7. Endocrine system
 - a. Definitions
 - b. Etiology
 - c. Examples
 - d. Complications
 - e. Prognosis
 - f. Radiographic appearance
 - g. Procedures and technical considerations
 - h. Relevance of radiographic procedures
 - i. Patient considerations and indications
 - j. Diagnostic modalities

8. Nervous system
 - a. Definitions
 - b. Etiology
 - c. Examples
 - d. Complications
 - e. Prognosis
 - f. Radiographic appearance
 - g. Procedures and technical considerations
 - h. Relevance of radiographic procedures
 - i. Patient considerations and indications
 - j. Diagnostic modalities

V. ACTIVITIES

1. Lectures by the teacher
2. Practice exercises
3. Discussion of readings and exercises
4. Application exercises
5. Self-healing
6. Collaborative work
7. Videos

- 8. Readings and supplementary exercises
- 9. Internet Search

VI. EVALUATION

Criterion	Punctuation	% of Final Grade
3 partial exams	300	45
Final exam or equivalent assessment	100	20
Activities	100	25
Tasks/Assignments	100	10
Total	600	100

Credit(s)	Contact Hours	Compliance Regulation Title IV	Total (Academic term)
1 Credit	15 hours contact per term	2 hours per week	30 hours
2 Credits	30 hours per term	4 hours per week	60 hours
3 Credits	45 hours per term	6 hours per week	90 hours
4 Credits	60 hours per term	8 hours per week	120 hours
5 Credits	75 hours per term	10 hours per week	150 hours

VII. ASSESSMENT STRATEGY

Oral presentation (Rubric)

VIII. SPECIAL NOTES

A. Auxiliary services or special needs

Any student requiring auxiliary services or special assistance must request them at the beginning of the courses or as soon as the student becomes aware that the services are needed through the corresponding registration with the Dean of Students.

B. Honesty, fraud, and plagiarism

Dishonesty, fraud or plagiarism committed by a student constitutes a serious violation of the General Student Regulations and may result in sanctions ranging from a written warning to suspension for a predetermined period of one year or more or permanent expulsion from the university, among other sanctions.

C. Use of electronic devices

Cell phones and any other electronic devices that may disrupt the teaching- learning process or disrupt an environment conducive to academic excellence will be disabled. Critical situations will be dealt with appropriately. The use of electronic devices that allow accessing, storing or sending data during tests or exams is prohibited.

D. Compliance with the provisions of Title IX

The Federal Law on Higher Education, as amended, prohibits discrimination on the basis of sex in any academic, educational activity, extracurricular and athletic or any other program or function, sponsored or controlled by an institution of higher education institution, whether or not conducted on or off the institution's property, if the institution receives federal funds.

In harmony with current federal regulations, an Assistant Title IX Coordinator has been designated in our academic unit to provide assistance and guidance on any alleged incident that constitutes sex or gender discrimination, sexual harassment or sexual assault. The Assistant Coordinator can be contacted by phone at (787) 864-2222, extension 2247 or by email at arcilia.riveragonzalez@guayama.inter.edu.

The normative document titled Norms and Procedures to Deal with Alleged Violations of the Provisions of Title IX is the document that contains the institutional rules to direct any complaint that appears to be this type of allegation. This document is available on the Website of Inter American University of Puerto Rico (www.inter.edu)

IX. EDUCATIONAL RESOURCES

Textbook(s)

Kowaczyk, N. (2021). *Radiographic Pathology for Technologists* (8th ed.) Elsevier Mosby

X. BIBLIOGRAPHY (OR REFERENCES)

Books

Callaway W. J. (2020). *Introduction to Radiologic Technology* (8th ed.). Elsevier Mosby

Callaway, W. J. (2022). *Mosby's comprehensive review of radiography: The complete Study Guide and Career Planner* (8th ed.). Elsevier

Carter, C. E. (2019). *Digital radiography and PACS* (3rd ed.). Elsevier

- Cure R. J. (2019). *Essential Radiology* (2nd ed.). Medical Publishing House Pan American
- Eltorai, A. (2019). *Essential radiology review: A question-and-answer guide*. Springer
- Golper, L. A. C. (2019). *Medical speech-language pathology: a desk reference* (4th Ed.). Plural Publishing, Inc
- Grant, L. (2020). *Fundamentals of radiology diagnosis*. Elsevier
- Hall, S. (2020). *The essentials in anatomy and physiology*. Elsevier
- Hodler, J. (2021). *Musculoskeletal diseases 2021-2024 [electronic resource]: Diagnostic imaging* (1st ed.). Springer International Publishing
- Hodler, J. (2020). *Diseases of the brain, head and neck, spine 2020-2023: Diagnostic imaging [electronic resource]*. (1st ed.). Springer International Publishing
- Kim, S. H. (2022). *Radiology illustrated: nutcracker phenomenon and nutcracker syndrome*. Springer
- Long, B. W. (2021). *Workbook and licensure exam prep for radiography essentials for limited practice* (6th ed.). Elsevier

OTHER

Electronic Resources

- Clinical Key: Elsevier
- American College of Radiology
- American Registry of Radiologic Technology
- American Society of Radiologic Technologists
- Association of Collegiate Educators in Radiologic Technology
- Image gently: The Image Gently Alliance
- Image Wisley: Radiation Safety in Adult Medical Imaging
- Joint Review Committee on Education in Radiologic Technology
- National Honors Society for Radiologic and Imaging Sciences (LAMBDA NU)
- The International Society of Radiology
- Hospital: 2022 National Patient Safety Goals

Database

**CINAHL(EBSCO)
EBSCO**

Magazines

Applied Radiology. Anderson Publishing Ltd, Ocean, NJ.

Diagnostic Imaging. United Business Media, San Francisco, CA.

Journal of Medical Imaging and Radiation Sciences. Published by Elsevier for the Canadian

Journal of Vascular Technology. Society of Vascular Technology, Lanham, MD.

Radiography. The College of Radiographers, St. Louis, MO.

Radiologic Science and Education. Association of Educators in Imaging and
Radiological Sciences, Albuquerque, NM.

Radiologic Technology. American Society of Radiologic Technologists, Albuquerque, NM.

Doctors. Radiological Society of North America, Oak Brook, IL.

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